# Journal of the Indian Chemical Society
## Volume XV, 1938.

### INDEX OF AUTHORS


PAGE

AHMAD, Aftab, Kartar S. NARANG and Jnanendra Nath RAY.—Synthesis of Quinazolines (and Benzoglyoxalines). Part V. ... ... 152

AHMED, G.—See Balwant SINGH.

BANERJEE, Pares Chandra.—Use of Vanadous Sulphate as a Reducing Agent. Part III. Estimation of Cerium ... ... ... 475

BANERJI, Phanibhusan.—See Muhammad QUDRAT-I-KHUDA.

BARPUJARI, GIRINDRA NATH.—See NRIPENDRA NATH CHATTERJI. ...

BASU, K. P. and M. C. NATH.—Organic Acid—Fe″ Complex as a Disturbing Factor in the Titrimetric Estimation of Ascorbic Acid... 133

BASU, U. P.—On Certain Salts of Alkaloids ... ... ... 513

BASU, U. P. and S. J. DAS-GUPTA.—Acridine Derivatives as Anti-malarials. Part II. ... ... ... ... ... 160

BHATNAGAR, S. S., P.L. KAPUR and Mahbub Shah HASHMI.—Phototropy and Photochemical Isomerism from the Magnetic Standpoint 573

BHATTACHARYA, Sachindra Nath.—See Prafulla Kumar BOSE.

BOSE, Prafulla Kumar and Sachindra Nath BHATTACHARYA.—Natural Flavones. Part II. On the Colouring Matters of the Bark of *Oroxylum Indicum*, Vent ... ... ... ... 311

BOSE, Prafulla Kumar and Rajendralal NATH.—Natural Flavones. Part I. The Constitution of Gardenin ... ... ... 139

BOSE, P. K. and H.H. FINLAYSON.—Occurrence of Psoralen in *Phebalium Argentum*, Smith ... ... ... ... 516

CHAKRAVARTY, Amritansu Sekhar and Balabhadra PRASAD.—Viscosity and Density of Cadmium Chloride Solutions at 35° ... .. 479

——See also Shivanandan PRASAD.

CHAKRAVARTI, Duhkhaharan and Brojeswar MAJUMDAR.—Synthesis of Coumarins from *o*-Hydroxy-arylalkyl Ketones. Part I. ... 136

CHAKRAVARTY, K. M.—Catalytic Formation of Methane from Carbon Monoxide and Hydrogen. Part V. A Study of the Promoter Effect upon Nickel Catalyst ... ... ... ... 245

PAGE

CHATTERJEE, N. R., S. GHOSH and R. N. CHOPRA.—Studies on the Enzymes of the Seeds of *Butea Frondosa*. Part I. Proteolytic Enzyme ... ... ... ... ... 101

——Studies on the Enzymes of the Seeds of *Butea Frondosa*. Part II. Lipolytic Enzyme ... ... ... ... 107

CHATTERJEE, Nripendra Nath.—A New Synthetic Route to Polycyclic Hydroaromatic Compounds. Synthesis of 2:3-Benz-*bicyclo*-[0:3:3]-$\Delta^2$-octene ... ... ... ... ... 211

CHATTERJEE, Nripendra Nath and Girindra Nath BARPUJARI.—Spiro-compounds. Part V. The Formation and Transformation of Spiro-compounds from 3- and 2-Methyl*cyclo*hexanones ... 639

CHATTERJEE, R.—Oxalenediamidoxime. Part I. Estimation of Nickel ... ... ... ... ... 608

CHATTERJEE, S., M. SANYAL and M. GOSWAMI.—Studies in Catalytic Dehydration ... ... ... ... ... 399

CHATTERJEE, S., A. SAHA and M GOSWAMI.—Composition of Boiled Oil 433

CHOPRA, R N.—See N. R. CHATTERJEE.

CHOWDHURY, D. K.—See B. N. GHOSH.

COWLAGI, S. S.—See C. A. ROTHENHEIM.

DAROGA, Rustom P. See Jamiat V. LAKHANI.

DAS-GUPTA, Hirendra Nath.—Studies in Organo-arsenic Compounds. Part VIII. Synthesis of Arsindole Derivatives from Phenylacetylene ... ... ... ... ... ... 495

——Studies in Organo-arsenic Compounds. Part IX. Synthesis of Arsenic Analogue of Succinimide ... ... ... 498

DAS-GUPTA, J.—See S. C. GANGULI.

DAS-GUPTA, S. J.—See U. P. BASU.

DE, S. S.—See B. N. GHOSH.

DESHAPANDE, S. S.—Essential Oil from Flower Kewda (*Pandanus Odoratissimus*) ... ... ... ... ... 509

DHAR, N.R.—See Atma RAM.

DHAR, N. R. and S.K. Mukerji.—New Aspects of Nitrogen Fixation and Conservation in the Soil. Part II. ... ... ... 543

——Denitrification in Sunlight and its Retardation. Part IV. ... 583

DUTT, Nihar Kumar.—See Panchanan NEOGI.

DUTT, Sikhibhushan.—See Mahadeo Prasad GUPTA.

PAGE

FINLAYSON, H. H.—See P.K. BOSE.

GANAPATI, K.—Synthesis in the Alloxazine, *iso*Alloxazine (flavin) and Lumazine Groups. Part II. Synthesis of some Amino Derivatives of Alloxazine and Thioalloxazine ... ... ... 77

——Synthesis in the Alloxazine, *iso*Alloxazine (flavin) and Lumazine Groups. Part III. Synthesis of some Acid Derivatives ... 121

——The Chemistry of some Derivatives of Decalin. Part I. ... 407

——The Chemistry of Bacterial Infections. Part I. Synthesis of some Derivatives of Sulphanilamide ... ... ... 525

GANGULI, S. C. and J. DAS-GUPTA.—Studies in Indian Bauxite. Part I. Chromium and Vanadium ... ... ... 243

GANGULY, S. C.—On the Estimation of Fumaric and Maleic Acids ... 611

GHOSH, Baidyanath.—Observations on the Relation between Pregnancy, Sex-hormones and the Vitamin C Content of the Tissues of Guinea-pigs ... ... ... ... ... ... 449

GHOSH, Baidyanath and B. C. GUHA.—Vitamin C and Toxins. Part I. The Effect of Vitamin C and other Reducing Substances on Diphtheria and Tetanus Toxins *in vitro* ... ... ... 438

——Vitamin C and Toxins. Part II. The Effect of the Administration of Vitamin C to Guinea-pigs injected with Diphtheria and Tetanus Toxins ... ... ... ... ... ... 443

GHOSH, Basanta Kumar.—Compounds of Hexamethylenetetramine with Simple and Double Salts of Cobalticyanic Acid and the Nature of Residual Affinity ... ... ... ... 305

GHOSH, B. N. and D. K. CHOWDHURY.—Enzymes in Snake Venom. Part IV. ... ... ... ... ... 566

GHOSH, B. N. and S. S. DE.—The Effect of Hydrogen-ion Concentration, Electrolytes and Normal and Immune Sera on the Cataphoretic Velocity of *Leishmania Tropica*. Part I. ... ... 233

GHOSH, J.C.—The Physico-chemical Properties of Ascorbic Acid ... 1

GHOSH, Nripendra Nath.—See Priyadaranjan RÂY.

GHOSH, S.—See N.R. CHATTERJEE.

GHOSH, Tejendra Nath.—Quinoline Derivatives. Part IV. ... 89

——Quinoline Derivatives. Part V. ... ... ... 240

GIRI, K.V.—Further Studies on the Hydrolysis of Starch by Sweet Potato Amylase ... ... ... ... ... 249

PAGE

GOSWAMI, M.—See S. CHATTERJEE.
GUHA, B.C.—See Baidyanath GHOSH.
GUHA, Sisir Kumar.—Dyes derived from Acenaphthenequinone. Part VI. 2-(4-Methyl)-thionaphtheneacenaphthyleneindigos ... 20
——Studies in Indigoid Dyes. Part III. ... ... ... 359
——Indigoid Vat Dyes of the Isatin Series. Part III. 3-Indole-2'-(4'-methyl)-thionaphtheneindigos ... ... ... ... 501
GUPTA, Mahadeo Prasad and Sikhibhusan DUTT.—Chemical Examination of the Seeds of *Solanum Xanthocarpum* (Schard and Wendle). Part II. The Constituents ... ... ... ... 59
——Chemical Examination of the Seeds of *Cleome Viscosa*, Linn. Part I. The Constituents ... ... ... ... 532
HASHMI, Mahbub Shah.—See S. S. BHATNAGAR.

JADHAV, G. V. and D. R. SUKHTHANKAR.—Interaction of Sulphuryl Chloride with Arylamides of Aromatic Acids. Part I. ... 649
JOSHI, Shridhar Sarvottam and S. PADMANABHAN.—Studies of some Physicochemical Factors in the Electrodeposition of Silver ... 176
JOSHI, Shridhar Sarvottam and T. V. Subba RAO.—Electrodeposition of Lead on Base Metals. Part I. Behaviour of Aikaline Baths with Iron Cathodes at Low Current Densities ... ... 377
JOSHI, Shridhar Sarvottam, Dushyant Nanasingasa SOLANKI, and T.V. Subba RAO.—Influence of Non-electrolytes on the Cathode Efficiency of Copper Deposition ... ... ... 167

KAPUR, P. L.—See S. S. BHATNAGAR.
KHAN, A. B.—See Mata PRASAD.
KRALL, H.—See Kunj Behari LAL.
KRISHNAMURTI, P. V.—See W. V. Sundara RAO.

LAL, Jagraj Behari.—See G. P. Pendse.
LAL, Kunj Behari and H. KRALL.—The Phenylthiocarbamides. A Contribution to the Study of the Triad-N·C·S-. Part VI. Action of Nitrous Acid on $\alpha\beta$-Methylphenylthiocarbamide ... ... 217
——The Phenylthiocarbamides. A Contribution to the Study of the Triad -N·C·S-. Part VII. A Reinvestigation of the extent of some Hydrolytic Decompositions of Phenylthiocarbamide. Reactions of Sodium Ethoxide on Phenylthiocarbamide and Acetic Anhydride and Hydrolytic Agents on $\alpha\alpha'$-and $\alpha\beta$-Methylphenylthiocarbamides 221

PAGE

LAKHANI, Jamiat V. and Rustom P. DAROGA.—The Determination of the Parachors of Inorganic Salts in Solutions and their Structure. Part I. Potassium Salts ... ... ... ... 37

——The Determination of the Parachors of Inorganic Salts in Solutions and their Structure. Part II. Some Lithium, Sodium, Rubidium Salts and Atomic Parachors of the above Elements including Cæsium ... ... ... ... ... 519

——The Determination of the Parachors of Inorganic Salts in Solutions. Part III. The Parachors of some Salts of Magnesium, Strontium and Barium, and the Atomic Parachor of the above Elements and Radium ... ... ... ... ... 604

MADHURANATH, M. K. and B. L. MANJUNATH —Chemical Examination of the Oil from the Seeds of *Santalum Album* (Linn). ... 389

MAHAL, Harbhajan Singh.—Quercetagetin from the Flowers of *Tagetes Erecta* ... ... ... ... ... 87

MAHAMUD, H. S. Shaik.—See C. A. ROTHENHEIM.

MAJUMDAR, Brojeswar.—See Duhkhaharan CHAKRAVARTI.

MALLICK, Akbar Ali.—See Muhammad QUDRAT-I-KHUDA.

MANJUNATH, B. L. and M. S. Shankara RAO.—Chemical Examination of *Bragantia Wallichii* (Lour.). ... ... ... 646

——Note on the Occurrence of Behenic Acid in the Oil from the Seeds of *Pongamia Glabra*, Vent ... ... ... 653

——See also M. K. MADHURANATH ... ... ...

MEHTA, S. M.—See Mata PRASAD.

MEHTA, C. M.—See Mme. RAMART, also K. G. NAIK.

MEHTA, T. N. and V. B. THOSAR.—The Reaction of some Aromatic Diamines with Ethyl Malonate ... ... 629

MERCHANT, R. N.—See Mata PRASAD.

MITRA, K.—Nutrition Studies in Bihar. Part II. Chemical Composition of some Local Edibles ... ... 623

MITRA, S. K.—Thioketonic Esters. Part V. ... ... 31

——On Thioaldehydes and Thioketones. Part II. ... ... 59

——Thioketonic Esters. Part VI. ... ... 129

——Thioketonic Esters. Part VII. Thio-thiol Estimation ... 205

——Experiments on the Synthesis of Cytisine. Part I. Synthesis of 3:5-Dicarbethoxypyrone-6-acetate and the corresponding Pyridones ... ... ... ... 455

MUKERJI, S. K.—See N. R. DHAR.

PAGE

MUKHERJI, A.—The Vitamin B Complex in Toxic Conditions ... 617

MUKHERJI, Ashutosh.—See Muhammad QUDRAT-I-KHUDA.

MURTY, M. N.—A Note on the Action of Chlorine-bleach on the Resin Constituents of Lac ... ... 118

NAIK, K. G., R. K. TRIVEDI and C. M. MEHTA.—Relations between Chemical Activity and Absorption in the Ultraviolet of certain Organic Molecules. Part II. Velocity of Saponification of the Chloro Derivatives of the Substituted Amides of Malonic Acid ... 426

——See also Mme. KAMART.

NARANG, Kartar S., Jnanendra Nath RAY and Bharpur Singh ROY.—Rottlerin. Part II. ... ... 393

——See Aftab AHMED.

NARWANI, Chuharmal S. and Jalejar B. SIDHWA.—Optical Inactivity of Gelatin in the Adsorbed State at the Liquid/liquid Interface and its Use as a Measure of Adsorption ... .. 65

NATH, M. C.—See K. P. BASU.

NATH, Rajendralal.—See Praphulla Kumar BOSE.

NEOGI, Panchanan and Nihar Kumar DUTT.—New Compounds of Gallium. Part III. Preparation and Resolution of Complex Oxalato Compounds of Gallium into Optical Isomers ... 83

PADMANABHAN, S.—See Shridhar Sarvottam JOSHI.

PENDSE, G. P.—Dyes derived from Thiohydantoin. Part III. ... 229

Pendse, G. P. and Jagraj Behari LAL.—Constituents of the Seeds of *Blepharis Edulis*, Pers. The Composition of the Oil. A correction... 471

PRASAD, Balabhadra—See Shivanandan PRASAD, also Amritansu Sekhar CHAKRAVARTI.

PRASAD, Mata and A. B. KHAN.—Space Group Determination of the Crystals of *ortho*- and *para*- Benztoluides by the *X*-ray Rotating Crystal Method ... ... 53

PRASAD, Mata and R. N. MERCHANT.—Study of the Crystals of *p*-Nitroaniline and *p*-Nitrotoluene by the *X*-ray Single Crystal Rotation Method ... ... 47

PRASAD, Mata, S. M. MEHTA and (Miss) H. RATHNAMMA.—Studies in Thixotropic Gelation of Thorium Molybdate Gels ... ... 365

PAGE

PRASAD, Shivanandan, Amritansu Sekhar CHAKRAVARTI and Balbhadra PRASAD.—Viscosity and Density of Aqueous Solutions of Mercuric Chloride at 35° ... ... ... ... ... 301

QUDRAT-I-KHUDA, Muhammad, Asutosh MUKHERJI and Phanibhushan BANERJI.—Strainless Monocyclic Rings. Part II. Synthesis of 3-Methyl*cyclo*hexane-1-carboxy-1-acetic Acid and Separation of its Isomers ... ... ... ... ... 462

QUDRAT-I-KHUDA, Muhammad, Akbar Ali MALLICK and Ashutosh MUKHERJI.—Strainless Monocyclic Rings. Part III. Synthesis of 2-Methyl*cyclo*hexanesuccinic Acid and the Separation of its Isomers ... ... ... ... ... 489

RAM, Atma and N. R. DHAR.—Formaldehyde Formation in the Photo-oxidation of Organic Compounds and the Formaldehyde Theory of Carbon Assimilation ... ... ... 321

RAMART (Mme.), K. G. NAIK and C. M. MEHTA.—Relations between Chemical Activity and Absorption in the Ultraviolet of certain Organic Molecules. Part I. Study of the Absorption Spectra of the Chloro Derivatives of the Substituted Amides of Malonic Acid ... ... ... ... ... 421

RAO, C. J. Dasa, D. G. WALAWALKAR and B. S. SRIKANTAN.—On the Anthocyanin Pigment in the Rind of Sugar-cane (*Purple Mauritius*) ... ... ... ... ... 27

RAO, G. Gopala —See W. V. Sundara RAO.

RAO, K. Aswath Narain and P. R. VENKATARAMAN.—Isomeric Triazocinnamic Acids and Related Compounds ... ... 194

RAO, M. S. Shankara.—See B. L. MANJUNATH.

RAO, T. V. Subba.—See Shridhar Sarvottam JOSHI.

RAO, V. Subba.—See Phuldeo Sahay VARMA.

RAO, W. V. Sundara, P. V. KSISHNAMURTI and G. Gopala RAO.—Mechanism of the Microbiological Oxidation of Ammonia. Part I. Formation of Intermediate Products ... ... ... 599

RATHNAMMA, (Miss) H.—See Mata PRASAD.

RAY, Jnanendra Nath.—See Aftab AHMED, also Kartar S. NARANG.

RAY, Priyadaranjan and Nripendra Nath GHOSH.—Complex Compounds of Biguanide with Tervalent Metals. Part II. Chromium Biguanidines ... ... ... ... 347

——Complex Compounds of Biguanide with Tervalent Metals. Part III. Chromium Phenylbiguanidines ... ... ... 350

PAGE

RAY, Priyadaranjan and Haribola SAHA.—Complex Compounds of Biguanide with Tervalent Metals. Part IV. Chromium *bis*-Biguanidines ... ... ... ... ... 353

——Complex Compounds of Biguanides with Tervalent Metals. Part V. Thiocyanates of Chromium Biguanides. ... ... 633

RAY, Susil Kumar.—Determination of Parachor in Solution. Part II. Parachor of Inorganic Salts in Aqueous Solution. ... ... 43

RAY, S. N.—Effect of Hyperthyroidism on the Metabolism of Vitamin C ... ... ... ... 237

RAYCHAUDHURY, Prodoshchandra.—Estimation of Chromium by Alkaline Mercuric Oxide ... ... ... ... 317

ROTHENHEIM, C. A., H. S. Shaik MAHAMUD and S. S. COWLAGI.—Vitamin C contents of Indian Foodstuffs. Chillies (*Capsicum*).— 15

ROY, Bharpur Singh.—See Kartar S. NARANG.

ROY, Sachindranath.—A Note on the Use of Adsorption Indicator in Acidimetry and Alkalimetry ... ... ... ... 165

RUDRA, M. N.—Studies in Vitamin C. Part V. The Vitamin C Content of some Germinated Cereals and Pulses ... ... 191

SAHA, A.—See S. CHATTERJEE.

SAHA, Haribola.—See Priyadaranjan RAY.

SANYAL, M.—See S. CHATTERJEE.

SEN, Dines Chandra.—A Method for the Estimation of Cobalt in presence of Nickel ... ... ... ... 473

——Studies in the Camphor Series. Part V. Some Derivatives of *iso*Nitrosothiocamphor ... ... ... ... 537

SEN-GUPTA, N. C.—On the Moving Boundary Method for the Determination of Cataphoresis of Colloids ... ... 483

——On the Physico-chemical Properties of Indian Bentonites. Part I ... ... ... ... ... 559

SEN-GUPTA, Sunil Bihari.—Studies in the Fluorescence of Dyestuffs ... 263

SETHNA, S. M. and R. C. SHAH.—Pechmann Condensation of Methyl $\beta$-Resorcylate with Ethyl $\alpha$-Alkylacetoacetates ... ... 383

SHAH, L. D.—Mercuration of Acetylurethane and its Substituted Amides ... ... ... ... ... 149

SHAH, R. C.—See S. M. SETHNA.

SIDDIQUI, Salimuzzaman.—See Shiam Kishore VASISTHA.

PAGE

SIDHWA, Jalejar B.—See Chuharmal S. NARWANI.

SINGH, Balwant.—Note on Oxidation of Ferrous Iron with Potassium Iodate ... ... ... ... ... 615

SINGH, Balwant and G. AHMED.—Potentiometric Studies in Diazotisation. Determination of Aromatic Amines ... ... 416

SINGH, Mahan.—Dimethylamino- and Diethylaminophenyliminocamphors. Reagents for Mercury ... ... ... 402

SOLANKI, Dushyant Narasingasa.—See Shridhar Sarvottam JOSHI.

SRIKANTAN, B. S.—See C. J. Dasa RAO.

SUKHTHANKAR, D. R.—See G. V. JADHAV.

THOSAR, V. B.—See T. N. MEHTA.

TRIVEDI, R. K.—See K. G. NAIK.

VARMA, Phuldeo Sahay and V. Subba RAO.—Halogenation. Part XX. Halogenation of Fluorene ... ... 72

VASISTHA, Shiam Kishore and Salimuzzaman SIDDIQUI.—Chemical Examination of Mango 'Chep,' the Exudation of the Fruit of *Mangifera Indica* ... ... 110

VENKATARAMAN, P. R.—See K. Aswath Narain RAO.

WALAWALKAR, D. G.—See C. J. Dasa RAO.

**Journal of the Indian Chemical Society**
**Vol. XV, 1938.**

# SUBJECT INDEX

## A

PAGE

Absorption spectra of the chloro derivatives of the substituted amides of malonic acid (RAMART, NAIK & MEHTA) ... ... 421

Acenaphthenequinone, dyes derived from (GUHA) ... ... 21

Acetanilide, *o*-nitro (amino)-ω-piperidino-, *o*-nitro (amino)-ω-diethylamino- (AHMAD, NARANG & RAY) ... ... 154

Acetophenone, tetrahydroxy-ω-methoxy-(BOSE & NATH) ... 146

Acetyl-*p*-anisylcarbamide, mercury derivatives of (SHAH) ... 151

Acetyl-*m*-(*o* or *p*)-tolylcarbamide, mercury derivatives of (SHAH) ... 150

Acetylurethane, mercuration of (SHAH) ... ... 149

Acetyl-1 : 3 : 4-xylylcarbamide, mercury derivative of (SHAH) ... 150

Acridine derivatives as antimalarials (BASU & DAS-GUPTA) ... 160

Acridine, 5-(1′-phenyl-2′ : 3′-dimethyl-5′-pyrazolonyl)-amino-, 2-chloro-7-methoxy-, -2-chloro-7-methyl-, -3-nitro-7-methoxy-, and 2 : 7-dichloro- (BASU & DAS-GUPTA) ... ... ... 162

Acridine, 5-(4′-phenylthiazolyl)-amino-, -2-chloro-7-methoxy-, -2-chloro-7-methyl-, -2:7-dichloro- and -3-nitro-7-methoxy- (BASU & DAS-GUPTA) ... ... ... ... ... 162

Acridine, 5-(4′methyl-5′-β-hydroxyethylthiazolyl)-amino-, -2-chloro-7-methoxy-, -2-chloro-7-methyl-, -2 : 7-dichloro-, -3-nitro-7-methoxy- (BASU & DAS-GUPTA) ... ... 164

Adsorption indicator, use of, in acidimetry and alkalimetry (ROY) ... 165

Alloxan, condensation of 1 : 2 : 4-triaminobenzene with (GANAPATI) ... 81

Alloxazine-7 (or 8)-β-acrylic acid (GANAPATI) ... ... 127

*iso*Alloxazine-9-propionic acid (GANAPATI) ... ... 125

Alloxazine-6- (or 7)-, 7 : 8 (or 5 : 6)-benzosulphonic acid (GANAPATI) ... 124

Alloxazine, 7-amino-2-thio- (GANAPATI) ... ... 81

Alloxazine (and thio-), synthesis of some amino derivatives of (GANAPATI) ... ... ... ... 77

β-Aminopropionic ester, hydrochloride of (MITRA) ... ... 460

PAGE

Anisaldehyde, β-trithio- (MITRA) ... ... ... 131

Antuitrin-S, effect on vitamin C concentrations in the organs of normal female guinea-pigs (GHOSH) ... ... 451

*iso*Aristolochic acid from *Bragantia Wallichii* (Lour.) (MANJUNATH & RAO) ... ... ... ... ... 646

Arsindole derivatives from phenylacetylene (DAS-GUPTA) ... 495

Arsindole, 1-phenyl-3-chloro- and derivatives (DAS-GUPTA) ... 496

Ascorbic acid, physico-chemical properties of (GHOSH) ... ... 1

reduced and reversibly oxidised (ROTHEINHEIM, MAHAMUD & COWLAGI) ... ... 19

**B**

Baicalein, isolation from the bark of *Oroxylum indicum* (Vent) (BOSE & BHATTACHARYA) ... ... ... 314

Bauxite (Indian), studies in (GANGULI & DAS-GUPTA) ... 243

Behenic acid in the oil from the seeds of *Pongamia Glabra*, Vent. (MANJUNATH & RAO) ... ... ... 653

Bentonites (Indian), the physico-chemical properties of (SEN-GUPTA) ... 559

Benzaldehyde, β-trithio- (MITRA) ... ... ... 131

Benzamide, *o*-ω-chloroacetylamino-, *o*-α-piperidinoacetylamino-, *o*-β-piperidinopropionylamino-, *o*-β-diethylaminopropionylamino- (AHMAD, NARANG & RAY) ... ... ... 156, 157

Benzanilide (*o*- & *m*-chloro-, *o*-nitro-), reaction with sulphuryl chloride (JADHAV & SUKHTANKAR) ... ... ... 651

Benz-*p*-anisidide, reaction with sulphuryl chloride (JADHAV & SUKHTANKAR) ... ... ... ... ... 652

2 : 3-Benz- bi*cyclo*-(o : 3 : 3)-$\Delta^2$-octene and its 4-one (CHATTERJEE) ... 215

Benzene-(*p*-amino-)-sulphonamidobenzene-*p'*-sulphonic acid (GANAPATI) 531

Benzene (*p*-acetamino)-sulphonamidoacetic acid and its ester (GANAPATI) ... ... ... ... 531

Benzene (*p*-acetamino-, *p*-amino-), sulphonylamidocinnamic acid (*m'* or *p'*) (GANAPATI) ... ... ... ... 530

Benzidine, reaction of, with ethyl malonate (MEHTA & THOSAR) ... 630

Benziminazole, 2-carbethoxyacetylmethyl and its ethyl ester (GHOSH) ... ... ... ... 91

piperidinomethyl-, *o*-diethylaminomethyl- (AHMAD, NARANG & RAY) ... ... ... 154

PAGE

Benznaphthyl (α- and β-) amide, reaction with sulphuryl chloride (JADHAV & SUKHTANKAR) ... ... ... 652
Benzoic acid, *o*-. *m*- and *p*-triazo- (RAO & VENKATARAMAN) ... 201
Benz-*p*-phenetidide, reaction with sulphuryl chloride (JADHAV & SUKHTANKAR) ... ... ... ... 652
Benz (*o*-, *m*- and *p*)-toluidide, reaction with sulphuryl chloride (JADHAV & SUKHTANKAR) ... ... ... ... 651
Benztoluidide (*o* & *p*), space group determination of the crystals of, by the X-ray rotating crystal method (PRASAD & KHAN) ... 53
Benzylamine, 3 : 4-methylenedioxy-6-nitro (amino)-acetyl- (AHMAD, NARANG & RAY) ... ... ... ... 159
Benzylidine, 4′-nitro-, 4′-dimethylamino-, -2-(4-methyl)-thionaphthene (GUHA) ... ... ... ... ... 363
Biguanide, complex compounds of, with tervalent metals (RAY & SAHA) ... ... ... ... 353, 633
(RAY & GHOSH) ... ... ... 347, 350
*Blepharis Edulis*, Pers, the composition of the oil from the seeds of (PENDSE & LAL) ... ... ... ... 471
Boiled oil, composition of (CHATTERJEE, SAHA & GOSWAMI) ... 433
Bornylene-1 : 2: 5-thiodiazole (SEN) ... ... ... 541
*Bragantia Wallichii*, chemical examination of (MANJUNATH & RAO) ... 646
*u*-Butane-αβδ-tricarboxylic acid (α-phenyl), and ethyl ester (CHATTERJEE) ... ... ... ... ... 213
*Butea Frondosa*, studies on the enzymes of the seeds of (CHATTERJEE, GHOSH & CHOPRA) ... ... ... 101, 107

## C

Cadmium chloride solutions, viscosity and density of (CHAKRAVARTI & PRASAD) ... ... ... ... 479
Catalytic dehydration, studies in (CHATTERJEE, SANYAL & GOSWAMI) ... 399
Cataphoresis of colloids, the determination of, by the moving boundary method (SEN-GUPTA) ... ... ... ... 483
Cataphoretic velocity of *Leishmania Tropica* (GHOSH & DE) ... 233
Cathode efficiency of copper deposition, influence of non-electrolytes on (JOSHI, SOLANKI & RAO) ... ... ... 167
Cerium, estimation of, with vanadous sulphate (BANERJEE) ... 475
Chemical activity and absorption in the ultraviolet of certain organic molecules, relation between (RAMART, NAIK & MEHTA) ... 421
(NAIK, TRIVEDI & MEHTA)... ... ... ... 426

PAGE

Chemotherapy of bacterial infections (GANAPATI) ... ... 525
Chlorine bleach, its action on the resin constituents of lac (MURTI) ... 118
Chromium biguanidines (RAY & GHOSH) ... ... ... 347
*bis*biguanides (RAY & SAHA) ... ... ... 353
phenylbiguanides (RAY & GHOSH) ... ... 350
*tris*biguanide ferricyanide, -cobalticyanide, -chromithiocyanate, -cobalticyanide, -chloronitroprusside, -hydroxomercuri-iodide, -chlorobismuthiiodide (RAY & GHOSH) ... ... ... 347-349
Chromium *bis*biguanide trithiocyanate, trinitrate and diaquo derivatives (RAY & SAHA) ... ... ... 630, 636
Chromium, estimation of, by alkaline mercuric oxide (RAYCHAUDHURY) 317
Chromium *tris*phenylbiguanide hydroxide, hydrochloride, hydrobromide, nitrate, chromate and sulphate (RAY & GHOSH) 350-352
Chromium *tris*biguanide hydroxothiocyanate, trithiocyante (RAY & SAHA) ... ... ... ... ... 637
Cinnamic acid dibromide, action of sodium azide on (RAO & VENKATARAMAN) ... ... ... ... ... 204
Cinnamic acid, *o*-, *m*-, *p*-triazo- (RAO & VENKATARAMAN) ... ... 199
Cinnamic acid, 3-nitro-4-amino- (GANAPATI) ... ... ... 126
*Cleome Viscosa* (Linn.), chemical examination of the seeds of (GUPTA & DUTT) ... ... ... ... ... 532
Cobalt, estimation of, in presence of nickel (SEN) ... ... 473
Copper deposition, influence of non-electrolytes on the cathode efficiency of (JOSHI, SOLANKI & RAO) ... ... ... 167
Coumarins, synthesis of, from *o*-hydroxyarylalkyl ketones (CHAKRAVARTI & MAJUMDAR) ... ... ... 136
Coumarin (7-hydroxy)-3:4-dimethyl-, 3-ethyl-4-methyl-, 3-propyl-4-methyl-, 3-butyl-4-methyl-, 3-benzyl-4-methyl-6-carboxylic acid and methyl esters and derivative (SETHNA & SAHA) 384-88
Coumarin, 3-methyl-4-ethyl-6-chloro-, 3:7-dimethyl-4 ethyl-6-chloro-, (CHAKRAVARTI & MAJUMDAR) ... ... ... 138
Cytisine, experiments on the synthesis of (MITRA) ... ... 455

## D

Decalin, the chemistry of some derivatives of (GANAPATI) ... 407
*trans*-Decalin, 2-keto-3-hydroxy-, 2-keto-3-bromo-, 2 : 3-diketo- and derivatives (GANAPATI) ... ... ... 414, 411

PAGE

Denitrification in sunlight and its retardation (DHAR & MUKERJI) ... 583
Dibenzoylstilbene, action of hydrogen sulphide on (MITRA) ... 64
Diethylaminophenyliminocamphor, a reagent for mercury (SINGH) ... 402
Diethyl (or dipropyl or dibutyl or diamyl)-amine, formation from diethyl (or *n*-propyl or *n*-butyl or *n*-amyl) ether and ammonia (CHATTERJEE, SANYAL & GOSWAMI) ... ... ... 400
Diethylaniline, preparation from ether and aniline (CHATTERJEE, SANYAL & GOSWAMI) ... ... ... ... 401
Diethyl *n*-butane-$\beta\delta$-dicarboxylate, $a\beta$-dicyano-$a$-phenyl- (CHATTERJEE) 213
Diethyl diphenylene-, *p*-phenylene- di-*o*-tolyl-(4 : 4′)-dimalonamate (MEHTA & THOSAR) ... ... ... 630, 632
Diethyl methyldithioacetoacetate (MITRA) ... ... ... 35
Dihydro-1:2:4-triazole, 2-phenyl-3-keto-5-diacetylmethyl- (GHOSH) ... 241
Dimethylaminophenyliminocamphor, a reagent for mercury (SINGH) ... 402
1 : 2-Dinitro-3:4:5-trimethoxybenzene (BOSE & NATH) ... ... 146
Dyestuffs, studies in the fluorescence of (SEN-GUPTA) ... ... 263

## E

Electrodeposition of silver, some physical factors in (JOSHI & PADMANABHAN) ... ... ... ... 176
Emetin-*d*-camphor-$\beta$-sulphonate (BASU) ... ... ... 513
Ephedrine camphorsulphonate (BASU) ... ... ... 514
Ethoxydeoxybenzoin, action of hydrogen sulphide on (MITRA) ... 63
Ethyl *p*-acetaminophenylmalonamate (MEHTA & THOSAR) ... 632
Ethyl 4-aminodiphenyl-4′-malonamate (MEHTA & THOSAR) ... 630
Ethyl cinnamate, 2-methoxy-5-chloro-$a$ methyl-$\beta$-ethyl (CHAKRAVARTI & MAJUMDAR) ... ... ... ... 138
Ethyl crotonate, $\beta$-methyl (ethyl)-mercapto-$a$-methyl-, $\beta$-methyl-carbethoxymercapto-$a$-methyl (MITRA) ... ... ... 35
Ethyl 1 : 2- dihydropyridine-6-acetate, 2-keto-3-cyano-5-carboxy-(1-$\beta$)-carbethoxyethyl-, -1-ethyl-, -1-methyl and derivatives (MITRA) ... ... ... ... 459-461
Ethyl 1:2-dihydropyridine-6-acetate, 2-keto-3-carbethoxy-5-carboxy-, -1-($\beta$) hydroxyethyl-, -1-($\beta$)-chloroethyl-, -1-vinyl- (MITRA) 457-458
Ethyl gluaconate, $\beta$-methylmercapto-, $\beta$-acetylmercapto-, -$\beta$-methyl carbethoxymercapto- (MITRA) ... ... ... 35
Ethyl malonate, reaction of some aromatic diamines with (MEHTA & THOSAR) ... ... ... ... ... 629

PAGE

Ethyl methyl (and *iso*butyl)- thioacetoacetate (MITRA) ... ... 34
Ethyl α-methyl-β-ethyl-β-hydroxy-β (2-methoxy-5-chloro-) phenylpropionate (CHAKRAVARTI & MAJUMDAR) ... ... ... 137
Ethyl α-pyrone-6-acetate, 3:5-dicarboxy-, 3-cyano-5-carbethoxy- (MITRA) ... ... ... ... 457, 458
Ethyl thioacetone dicarboxylate, action of *n*-butylmagnesium iodide on (MITRA) ... ... ... ... ... 36
Ethyl thioacetylmalonate (MITRA) ... ... ... 33

## F

Ferrous iron, oxidation of, with potassium iodate (SINGH)... ... 615
Fluorescence of dyestuffs (SEN-GUPTA) ... ... ... 263
Flavones, natural (BOSE & NATH) ... ... ... 139
(BOSE & BHATTACHARYA) ... ... ... 311
Fluorene, 2-chloro-7-bromo-, 2-bromo-, 7-chloro-, 2-chloro-7-iodo-, 2-iodo-7-chloro-, 2-bromo-7-iodo- 2-iodo-7-bromo-, 2 : 7 dibromo-6 (?)-iodo-, 2:7 dichloro-6 (?) -bromo-, 2:7-diiodo- (VARMA & RAO) 72-76
Fluorene, halogenation of (VARMA & RAO) ... ... ... 72
Formaldehyde, trithio (MITRA) ... ... ... ... 131
,, formation of, in the photo-oxidation of organic compounds (RAM & DHAR) ... ... ... 321
theory of carbon assimilation (RAM & DHAR) ... 337
Fumaric acid, estimation of (GANGULY) ... ... ... 611

## G

Gallium, new compounds of (NEOGI & DUTT) ... ... ... 83
tri-oxalato acid, alkali salts of (NEOGI & DUTT) ... ... 84
*l*-strichnine-*d*-oxalate (NEOGI & DUTT) ... ... 85
Gardenin, the constitution of (BOSE & NATH) ... ... 139
Gardeninone (BOSE & NATH) ... ... ... ... 146
Gardeninol (BOSE & NATH) ... ... ... ... 147
Gelatin, optical inactivity of, in the absorbed state (NARWANI & SIDHWA) ... ... ... ... 65
Gelation (thixotropic) of thorium molybdate gels (PRASAD, MEHTA & RATHNAMMA) ... ... ... ... 365

## H

1:5-Heptadiazine, 2:4-dimethyl-3-(2′)-benziminazolyl-6:7-benzo-(GHOSH) 94

PAGE

*trans*-Hexahydrohydrindenol carboxylic acid (GANAPATI) ... 414

Hexamethylenetetramine, compounds of, with simple and double salts of cobalticyanic acid (GHOSH) ... ... ... 305

*cyclo*Hexane, 1-cyano-3 (or 2)-methyl-1-α-cyanoglutaric acid, ethyl ester of (CHATTERJEE & BARPUJARI) ... ... 641

1-carboxy-3- (or 2 methyl)-1-α-glutaric acid, ethyl ester of (CHATTERJEE & BARPUJARI) ... ... ... 642

3- (or 2)-methyl-spiro-*cyclo*pentane-2′-one-3′:5′-dicarboxylic acid, ethyl ester of (CHATTERJEE & BARPUJARI) ... 643

*cyclo*Hexane (3- or 2-methyl)- spiro-*cyclo*pentane-2′- one-5′- carboxylic acid and ethyl ester (CHATTERJEE & BARPUJARI) ... ... 643

*cyclo*Hexane (3-methyl-)-spiro-*cyclo*pentane-5′-carboxylic acid (CHATTERJEE & BARPUJARI) ... ... ... ... 644

*cyclo*Hexane (2-methyl-) succinic acids and derivatives (QUDRAT-I-KHUDA, MALLICK & MUKHERJI) ... ... ... 489

*cyclo*Hexane (1-methyl-)-1-cyano-acetic acid, ethyl ester of (QUDRAT-I KHUDA, MALLICK & MUKHERJI) ... ... ... 491

*cyclo*Hexane (3-methyl-)-1-carboxy-1-acetic acid, synthesis and separation of isomers (QUDRAT-I-KHUDA, MUKHERJI & BANERJI) ... 462

*cyclo*Hexane-1:2-diacetic acid (*trans*-) (GANAPATI) ... ... 413

Hydroxo-aquo-chromium-*bis*biguanide-sulphate, hydrochloride, hydroiodide, thiocyanate, nitrate, thiosulphate, chromosulphonate, chromate, hydroxide (RAY & SAHA) ... ... 355-358

Hydroxo-aqo-chromiun *bis*biguanidines, hydrolysis of (RAY& SAHA) ... 358

## I

3-Indole, 5-chloro-, 5-bromo-, 5 : 7-dibromo-, 5-bromo-7-nitro-, 5 : 7-dinitro-, 2′(4′-methyl)- thionaphtheneindigos (Guha) ... ... 501

## K

5-Ketodehydropyrazolone, 1-phenyl-3-methyl-(MITRA) ... ... 36

8-Ketohexahydropentanthrylene ketone (CHATTERJEE) ... ... 216

5-Ketopyrazolone, 1-phenyl-3-methyl-4-carbethoxy-, (MITRA) ... 33

## L

Lead, electrodeposition of, on base metals (JOSHI & RAO) ... 377

*Leishmania tropica*, effect of hydrogen ion concentration, electrolytes, normal and immune sera on the C. V. of (GHOSH & DE) ... 233

Lumazine, 2′ : 3′- *trans*decalo- (GANAPATI) ... ... ... 413

## M

PAGE

Maleic acid, estimation of (GANGULY) ... ... ... 611
Malonic acid, chloro derivatives of the substituted amides of (RAMART, NAIK & MEHTA) ... ... ... 421
study of the absorption sepectra of (RAMART, NAIK & MEHTA) ... ... ... ... 424
velocity of saponification of (NAIK, TRIVEDI & MEHTA) ... ... ... ... 426
Malonylbenzidine (MEHTA & THOSAR) ... ... ... 631
*Mangifera indica*, chemical examination of the exudation of the fruit of (VASISTHA & SIDDIQUI) ... ... ... 110
Mangiferen (VASISTHA & SIDDIQUI) ... ... ... 114
Mangiferic acid (VASISTHA & SIDDIQUI) ... ... ... 116
Mangiferol (VASISTHA & SIDDIQUI) ... ... ... 117
Mauritindin sulphate (RAO, WALAWALKER & SRIKANTAN) ... 29
Mauritinin chloride, isolation of, in the rind of sugarcane (RAO, WALAWALKER & SRIKANTAN) ... ... ... 28
Mercuric chloride, viscosity and density of aqueous solutions of (PRASAD, CHAKRAVARTI & PRASAD) ... ... 301, 302
Mercury, reagents for (SINGH) ... ... ... 402
Mercury *bis*acetyl-α (or β)-naphthylcarbamide (SHAH) ... ... 150
Mercury *bis*phenylurethane, -acetylphenylcarbamide, acetylurethane (SHAH) ... ... ... ... 149-151
Methane, formation of, from carbon monoxide and hydrogen (CHAKRAVARTI) ... ... ... ... ... 245
Methylenedioxy*iso*vasicone (AHMAD, NARANG & RAY) ... ... 159
β-Methylmethoxymercapto-α-methylcrotonic acid, ethyl ester of (MITRA) 131
Methyl propionate (αβ-dibromo-β-phenyl-), action of sodium azide on (RAO & VENKATARAMAN) ... ... ... ... 204
Methyl β-resorcylate, Pechmann's condensation with ethyl alkylacetoacetates (SETHNA & SHAH) ... ... ... ... 383
2-(4-Methyl)-thionaphthene-8'-acenaphthyleneindigo, (3'-bromo- 1'-methoxy) (GUHA) ... ... ... ... 24

## N

Nickel, estimation of, with oxalenediamidoxime (CHATTERJEE) ... 608
*p*-Nitroaniline, study of the crystals of, by the *X*-ray single crystal rotation method (PRASAD & MERCHANT) ... ... ... 47

PAGE

Nitrogen fixation, new aspects of (DHAR & MUKERJI) ... ... 543
*p*-Nitrotoluene, study of the crystals of, by the *X*-ray single crystal rotation method (PRASAD & MERCHANT) ... ... ... 47
Nutrition studies of edibiles in Bihar (MITRA) ... ... 623

**O**

Organo-arsenic compounds, studies in (DAS-GUPTA) ... 495, 498
Oroxylol (BOSE & BHATTACHARYA) ... ... ... 314
*Oroxylum indicum*, colouring matters of the bark of (BOSE & BHATTACHARYA) ... ... ... ... ... 311
Oxidation of ferrous iron with potassium iodate (SINGH) ... ... 615

**P**

*Pandanus Odoratissimus* (flowers of kewda), isolation of *β*-phenyl-ethyl alcohol from the essential oil from (DESHAPANDE) ... 509
Parachors of potassium salts in solution (LAKHANI & DAROGA) 37-42
of chloride, bromide and nitrate of potassium and ammonium and chloride and iodide of potassium in water (RAY) ... ... ... ... 43-46
of the salts of lithium, sodium, rubidium (LAKHANI & DAROGA) ... ... ... ... 519
of the salts of Mg, Sr, and Ba (LAKHANI & DAROGA) ... 604
Parachor (atomic) of lithium, sodium, rubidium and caesium (LAKHANI & DAROGA) ... ... ... 519
of Mg, Sr, Ba and Ra (LAKHANI & DAROGA) ... ... 604
Pentane, δ-phenylimido-γ-(2-phenyl- 3-ketodihydro-1 : 2 : 4 or 3-keto dihydro-1:2:4)-triazolyl-*β*-keto- (GHOSH) ... ... 241
Pentane, δ-phenylimido-γ-(2′)-benziminazolyl-*β*-keto- (GHOSH) ... 93
*cyclo*Pentane (2-phenyl-)-3-carboxylic-1-acetic acid and its diethyl ester (CHATTERJEE) ... ... ... ... 216
*cyclo*Pentane (2-phenyl-)-1-carboxylic acid (CHATTERJEE) ... 214
*cyclo*Pentanone (2-phenyl-)-3-carboxylic acid and ethyl ester (CHATTERJEE) ... ... ... ... 214
*cyclo*Pentanol (2-phenyl)-3-carboxylic acid-1 acetic diethyl ester of (CHATTERJEE) ... ... ... ... 215
Δ′-*cyclo*Pentenyl (2-phenyl)-acetic acid-3-carboxylic acid, diethyl ester of (CHATTERJEE) ... ... ... ... 215
*cyclo*Pentanone (2-phenyl)-3 : 5-dicarboxylic ester, ethyl ester of (CHATTERJEE) ... ... ... ... 214

PAGE

*Phebalium argentum*, occurrence of psoralen in (BOSE & FINLAYSON)... 516
Phenyl (2-methoxy-5-chloro-) ethyl ketone (CHAKRAVARTI & MAJUMDAR) 137
Phenyl (*p*-acetamino-, *p*-amino-, *p*-ω-allylthiourea) dimethylsulphonamide (GANAPATI) ... ... ... ... 528
Phenyl (*p*-acetamino-, *p*-amino-) sulphonyl-*p'*-amino (dimethyl) anilide (GANAPATI) ... ... ... ... 529
*p*-Phenylenediamine, reaction of, with ethyl malonate (MEHTA & THOSAR) ... ... ... ... 632
Phenyl*cyclo*tetramethylenearsine (DAS-GUPTA) ... ... 500
Phenylthiocarbamide (methyl), hydrolytic experiments with (LAL & KRALL) ... ... ... ... 224
Phenylthiocarbamide (αβ-methyl), action of nitrous acid on (LAL & KRALL) ... ... ... ... 217
2:4:5-Phenylthiophen and endoxy derivative (MITRA) ... 64
Photochemical isomerism from the magnetic standpoint (BHATNAGAR, KAPUR & HASHMI) ... ... ... ... 573
Photo-oxidation of organic compounds (RAM & DHAR) ... ... 321
Phototropy from the magnetic standpoint (BHATNAGAR, KAPUR & HASHMI) ... ... ... ... ... 574
Phthalimide, *N*-3 : 4-methylenedioxy-6-nitrobenzyl- (AHMAD, NARANG & RAY) ... ... ... ... ... 158
Polycyclic hydroaromatic compounds, a new synthetic route to (CHATTERJEE) ... ... ... ... ... 211
Potentiometric studies in diazotisation (SINGH AND AHMED) ... 416
Propioanilide, *o*-nitro-β-chloro-, *o*-nitro (amino)-β-piperidino-, *o*-nitro (amino)-β-diethylamino-(AHMAD, NARANG & RAY) ... ... 155
Propionic acid, *N*-(*o*-nitrophenyl)-β-amino, *N*-(2-nitro-4-methyl phenyl)-β-amino-(GANAPATI) ... ... ... ... 125
Psoralen in *Phebalium argentum* (BOSE & FINLAYSON) ... ... 516
Pyrazole, 2 : 4-dimethyl-3-(3' ketodihydro-1' : 2' : 4')-triazolyl-(GHOSH) 241
Pyrazolone, 1-phenyl-3-methyl-4-(2')-benziminazolyl- (GHOSH) ... 92

## Q

Quercetagetin from the flowers of *Tagetes erecta* (MAHAL) ... 87
Quinazoline (4 oxy-), 2 piperidinomethyl-, 2-α-diethylaminomethyl-, 2-β-piperidinoethyl-, 2-β-diethylaminoethyl- (AHMAD, NARANG & RAY) ... ... ... ... ... ... 156
Quinine mandelate, 2-oxynaphthoate, 1 : 1'-methylene-2:2'-dinaphthyl-3 : 3' dicarboxylate, camphorsulphonate (BASU) ... 514, 515

PAGE

Quinoline sulphonic acid, 2-hydroxy-3-(2′)-benziminazolyl-4-methyl- (GHOSH) ... ... ... ... ... 92
Quinoline, 2 : 4-dimethyl-3-(2′)-benziminazolyl- (GHOSH) ... 93
Quinoline, 2 : 4-dimethyl-3-(2′-phenyl-3′-ketodihydro 1′: 2′:4′)-triazolyl- (GHOSH) ... ... ... ... ... 241

## R

Rottlerin (NARANG, RAY & ROY) ... ... ... 393

## S

*Santalum album*, chemical examination of the oil from the seeds of (MADHURANATH & MANJUNATH) ... ... ... 389
Silver, electrodeposition of, studies of some physicochemical factors in (JOSHI & PADMANABHAN) ... ... ... ... 176
Solanacarpine (GUPTA & DUTT) ... ... ... ... 97
Solanacarpigenin (GUPTA & DUTT) ... ... ... 98
Solanacarpone (GUPTA & DUTT) ... ... ... ... 99
*Solanum xanthocarpum*, chemical examination of the seeds of (GUPTA & DUTT) ... ... ... ... ... 95
Spiro-compounds, formation and transformation of, from *cyclo*hexanones (2- and 3-methyl) (CHATTERJEE & BARPUJARI) ... ... 639
Starch, hydrolysis of, by sweet potato amylase (GIRI) ... ... 249
Strainless monocyclic rings (QUDRAT-I-KHUDA, MALLICK & MUKHERJI) 489
Succinimide, *N*-3 : 4-methylenedioxy-6-nitrobenzyl- (AHMAD, NARANG & RAY) ... ... ... ... ... 159
Succinylphenylarsine (DAS-GUPTA) ... ... ... 499
Sugarcane, anthocyanin pigment in the rind of (RAO, WALAWALKAR & SRIKANTAN) ... ... ... ... 27
Sulphanilamide, synthesis of derivatives of (GANAPATI) ... ... 525
Sulphuryl chloride, interaction with arylamides of aromatic acids (JADHAV & SUKHTANKAR) ... ... ... ... 649

## T

*Tagetes erecta*, isolation of quercetagetin from the flowers of (MAHAL) 87
Tetrahydrorottlerone (NARANG, RAY & ROY) ... ... 398

PAGE

Tetraphenyl-2 : 5-endothiothiophen, 3-ethoxy-4-hydro-, 3-ethoxy-4-bromo-, 3-methoxy-4-hydro- (MITRA) ... ... 61-63
Tetraphenyl-2 : 5-endoxythiophen, 3-hydroxy-4-hydro- (MITRA) ... 63
Theelin, effect on vitamin C concentration in the organs of normal female guinea-pigs (GHOSH) ... ... ... ... 451
Thiazole, 2-amino-4-methyl-5-β-hydroxyethyl-(BASU & DAS-GUPTA) 163
Thioaldehydes (MITRA) ... ... ... ... 59
Thiocamphor (*iso*nitroso), some derivatives of (SEN) ... ... 537
Thiohydantoin, 5-phenanthraquinone-, 5-tetramethyldiaminobenzophenone-, 5-acenaphthoquinone-, 5-isatin-, 5-fluorenone-, 1 : 2-dihydroxyanthraquinone-, 5-alizarin-, 5-benzil, 5-dibenzylideneacetone-, 5-*p*-benzoquinone-, 5-anthraquinone- (PENDSE) ... ... 230
Thiohydantoin, dyes derived from (PENDSE) ... ... ... 229
Thioketones (MITRA) ... ... ... ... 59
Thiolumazine, 2′ : 3′-*trans*-decalo- (GANAPATI) ... .. 413
Thioketonic esters, thio-thiol estimation in (MITRA) ... ... 205
Thioketonic esters (MITRA) ... ... ... 31, 129
Thionaphthene, 4-methyl-3-hydroxy- (GUHA) ... ... 23
*bis*-2-Thionaphthene, (4-methyl)-ethyleneindigo (GUHA) ... ... 362
Thiophen, tetraphenyl (MITRA) ... ... ... ... 62
2-Thionaphthene (4 or 6-methyl-)-1′-aceanthryleneindigo (GUHA) 364
Thiourea (ω-allyl), *p*-(or *m*)-acetaminophenyl-, *p*-aminophenyl- (GANAPATI) ... ... ... ... ... ... 527
Thiourea, (ω-allyl) cinnamic acid (*p*- and *m*-) (GANAPATI) ... 528
Thiourea (ω-allyl)-phenylsulphonyl (*p*)*p*′-sulphonamidoanilide (GANAPATI) ... ... ... ... 528
Thiourea (ω-allyi)-phenylsulphamide (*p*) (GANAPATI) ... ... 528
Thorium molybdate gels, preparation, effect of temperature, electrolytes, non-electrolytes and their mixture in thixtropic gelation (PRASAD, MEHTA & RATHNAMMA) ... ... ... 365
Tolidine, reaction of, with ethyl malonate (MEHTA & THOSAR) ... 631

## V

Vanillin, β-trithio- (MITRA) ... ... ... ... 131
Violuric acid, condensation of *m*-phenylenediamine with (GANAPATI) 79
Viscosin (GUPTA & DUTT) ... ... ... ... 535
Viscosic acid (GUPTA & DUTT) ... ... ... ... 534
Viscosity of aqueous solutions of mercuric chloride (PRASAD, CHAKRAVARTI & PRASAD) ... ... ... ... ... 302

PAGE

Vitamin B complex in toxic conditions (MUKHERJI) ... ... 617
Vitamin C contents of Indian foodstuffs (ROTHENHEIM, MAHAMUD & COWLAGI) ... ... ... ... 15
of some germinated cereals and pulses (RUDRA) ... 191
the effect of the administration of, to guinea pigs injected with diphtheria and Tetanus toxins (GHOSH & GUHA)... ... ... ... 443
the effect of, on diphtheria and tetanus toxins *in vitro* (GHOSH & GUHA) ... ... ... 438
of the tissues of guinea-pigs, relation between pregenancy and sex-hormones (GHOSH) ... 449
Vitamin C, effect of hyperthyroidism on the metabolism of (RAY) ... 237
Vanadous sulphate as reducing agent (BANERJEE) ... ... 475